



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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DOGMI
MINERALS PROGRAM
FILE COPY

November 20, 1989

Mr. Glen M. Eurick
Environmental and Occupational
Health Coordinator
Barrick Mercur Gold Mines, Inc.
P.O. Box 838
Tooele, Utah 84074

Glen
Dear Mr. Eurick:

Re: Review of Revised Application for Permit Revision, Barrick Mercur Mine,
M/045/017-88(1), Tooele County, Utah

The Division has completed its review of your revised permit revision application received August 15, 1989, for the Barrick Mercur Mine. We have also reviewed the supplemental design details for the Sunrise Waste Rock Dump, received October 27, 1989. We apologize for the unforeseen delay in providing our response to you.

The application remains incomplete and the following review comments must be addressed before the Division can proceed to issue its tentative approval and publish the 30-day public notice.

R613-004-105 - Maps, Drawings and Photos

The operator has not provided all of the information as requested in our February 22, 1989 letter under this section. Some of the requirements have been met, however the following areas still need to be addressed:

1. The operator has not indicated which pages of text, maps, figures, tables and drawings should be removed from the approved mining and reclamation plan and replaced with the revised plans. A number of new maps have been prepared which we assume should replace previous maps with the same designated numbers. However, we are not certain if there are other maps, drawings, tables and text, in the original approved mining and reclamation plan, which are no longer valid.
2. The operator has prepared a new table of contents with the latest revision, but has not indicated how the new information should be inserted into the older approved plan. The Division requested that the revised materials be properly formatted to allow direct insertion as replacement pages (with proper page numbers, revision dates, etc.) into the approved mining and reclamation plan. Please provide a revised index sheet which outlines instructions to implement this request.

Although the Division concurs with the general concept of the proposed Meadow Canyon Dump Leach #3, the operator failed to provide the design specifications for this facility and the process ponds as previously requested. We cannot approve of the construction of this facility until the design specifications have been reviewed and accepted by this Division.

3. The operator must provide the design details for Dump Leach #3 and any pertinent written text which describes how this structure and the pertinent support facilities will be constructed and reclaimed. A revised surface facilities map which identifies the location and components of the support facilities to be constructed in Meadow Canyon is requested.
4. The design details for the proposed Rover Hill Dump Leach facility must be provided and approved by the Division prior to construction. We can only concur with the conceptual plan at this time.

On page 2 of 4, of the August 14th response, the operator references Attachments 1 and 2 for a listing of those maps/drawings specifically impacted by the nature of the revision. We could not locate these attachments in the application.

5. Are the revised maps supposed to be the referenced attachments? If so, which maps are to correspond with the designated attachments? If not, please provide said attachments or indicate which items should have otherwise been referenced.

R613-004-106 - Operation Plan

1. After reviewing the updated Map 2.4-2, it was noted that certain topsoil stockpiles no longer exist. What has happened to topsoil stockpiles #9, 12, 14 and 16? If these stockpiles have been relocated, please indicate where?
2. Upon evaluation of Map 2.4-2 and Map 2.2-5, a concern is raised over the location of topsoil stockpile T15 and proposed impoundment T15B. Will stockpile T15 act as the actual impoundment or is T15B another structure which will impound surface runoff below the stockpile? Is silt fence #6 proposed to be constructed above stockpile T15 to minimize erosion of the upstream face of the stockpile? What will prevent stockpile T15 from becoming saturated with runoff and posing a potential failure condition? The Division recommends routing surface drainage around this stockpile to minimize this potential risk.
3. The 6-inch perforated subdrainage pipe apparently surfaces at the toe of stockpile T15. Will surface runoff be routed around T15 into impoundment T15B where this subdrain can effectively dewater said impoundment? Additional measures should be used to insure that the entrance to this pipe will not become clogged with sediments and clay? The photograph of the pipe inlet in the bottom of T15B, shows minimal protection in this regard. Where does the eastern branch of this subdrain surface? Is it intended to intercept drainage from proposed silt fences #7 & 8? Will the inlet to this subdrain be similarly protected. Will these inlets continue to function as such upon final reclamation?

R613-004-106 & -109 - Operation Plan & Impact Assessment

On page 2 of 4, of the revised application, the operator indicates that no significant additional impact will occur as a result of the proposed revision. The operator also indicates that all provisions of section -106 have been previously addressed in the approved permit.

A review of the previously approved and referenced documents did not specifically address the question of potential deleterious and acid-forming material. The Division raises this question based upon the continued expansion of the waste dumps as the pits are enlarged. Potentially detrimental impacts to the local surface and groundwater resources and to the eventual reestablishment of vegetation on the dumps could occur, if there are any deleterious or acid-forming waste materials associated with the wasterock generated by the mining operation.

Therefore, the Division requests that the operator perform a series of acid-base analyses on the new overburden waste material prior to its disposal on the dumps. The intent is to characterize all variations of waste material to assess any negative impact potential on the local environment.

The material that would have the highest likelihood of producing a deleterious or acid-forming condition is the sulfide-bearing wasterock. This potential may best be determined from an evaluation of samples obtained from exploration and/or blast holes drilled prior to actual expansion of the pit(s). More detailed chemical analyses of the waste material may be required depending upon the acid-base potential results.

The Division requests that the operator develop a plan for sampling and evaluating the acid-base potential of the wasterock/overburden to be generated as part of the pit(s) expansion. This plan should be submitted to the Division for our approval prior to implementation.

If the operator believes that this question has already been resolved as part of previous permitting correspondence, please provide the specific reference(s) to this documentation.

R613-004-107 - Operation Practices

The operator indicates on page 50 of the plan, that a topsoil deficit of 127,362 cy exists. How will this deficit be resolved?

R613-004-110 - Reclamation Plan

On pages 58 and 59, the operator describes the sequence of reclamation. Upon final reclamation, the plan indicates that runoff from Meadow Canyon will continue to be diverted along the haul road surface, down the dump face channel and into the restored stream channel. The plan also indicates that all water and sediment originating in the upper reaches of Meadow and Mercur Canyons will drain into the Marion and Golden Gate pits.

1. Will the restored stream channel also drain into one of these pits? This is somewhat confusing and not clearly depicted on Map 2.4-3. Please clarify the intent of this post reclamation drainage proposal.

On page 51, the operator indicates that compacted roads will be scarified and topsoiled upon reclamation. The Division assumes that this provision will also apply to the Meadow Canyon haul road diversion.

2. The Division concurs with the use of the haul road surface as a diversion during operations, but does not believe that a 30-foot wide diversion is warranted following operations. Following mining operations, efforts should be made to maximize the extent of reclamation of this disturbance and minimize the area needed for continued diversion purposes.

The operator has provided updated mine drainage maps to describe how surface runoff and erosion will be controlled during and after mining operations.

3. Map 2.4-3, Post Reclamation Mine Drainage is rather confusing when one tries to correlate it with Map 2.2-5, Runoff Management Plan. Map 2.4-3 should show the location of the actual drainage structures which will be in effect following reclamation. Arrows showing the direction of flow would also be helpful in interpreting this map. Please revise Map 2.4-3 accordingly.

R613-004-110 & 111 - Reclamation Practices

On page 3 of 4, of the August 14th response, the operator references Attachments 2 and 3 in the revised revision. Again, we could not locate these attachments in the application. Please provide said attachments or indicate which items should otherwise be referenced.

R613-004-113 - Surety

1. The reclamation agreement and surety forms which were made part of the original November 1988 revision application are no longer valid. The Division has revised the Reclamation Contract and the self-bonding forms. The revised forms are attached and must be used to complete this permitting action.
2. The unaudited (January - June/88) financial statement provided by American Barrick Resources Corporation must, at a minimum, be updated to include the first six months of 1989.

General Observation:

In the future, we would request that the operator address our specific questions and technical concerns directly. It was difficult locating answers to our questions in the latest revision volume. If the operator chooses to provide a completely new volume, we would ask that the operator specify where, in that volume, our specific concerns have been addressed. This saves time in our review of the proposal and in returning a response to the operator.

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November 20, 1989

As always, the Division's approval is also conditioned upon Barrick's receipt of all other applicable clearances and/or regulatory approvals prior to commencement of construction activities. The Division appreciates your patience and cooperation in completing this permitting action. Please call if you have any questions regarding the content of this review.

Sincerely,



Lowell P. Braxton
Associate Director, Mining

Attachments

DWH/jb

cc: Brian Buck, JBR Consultants
Howard Hedrick, BLM, Pony Express Resource Area
Don Ostler, State Health
Wayne Hedberg
Holland Shepherd

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